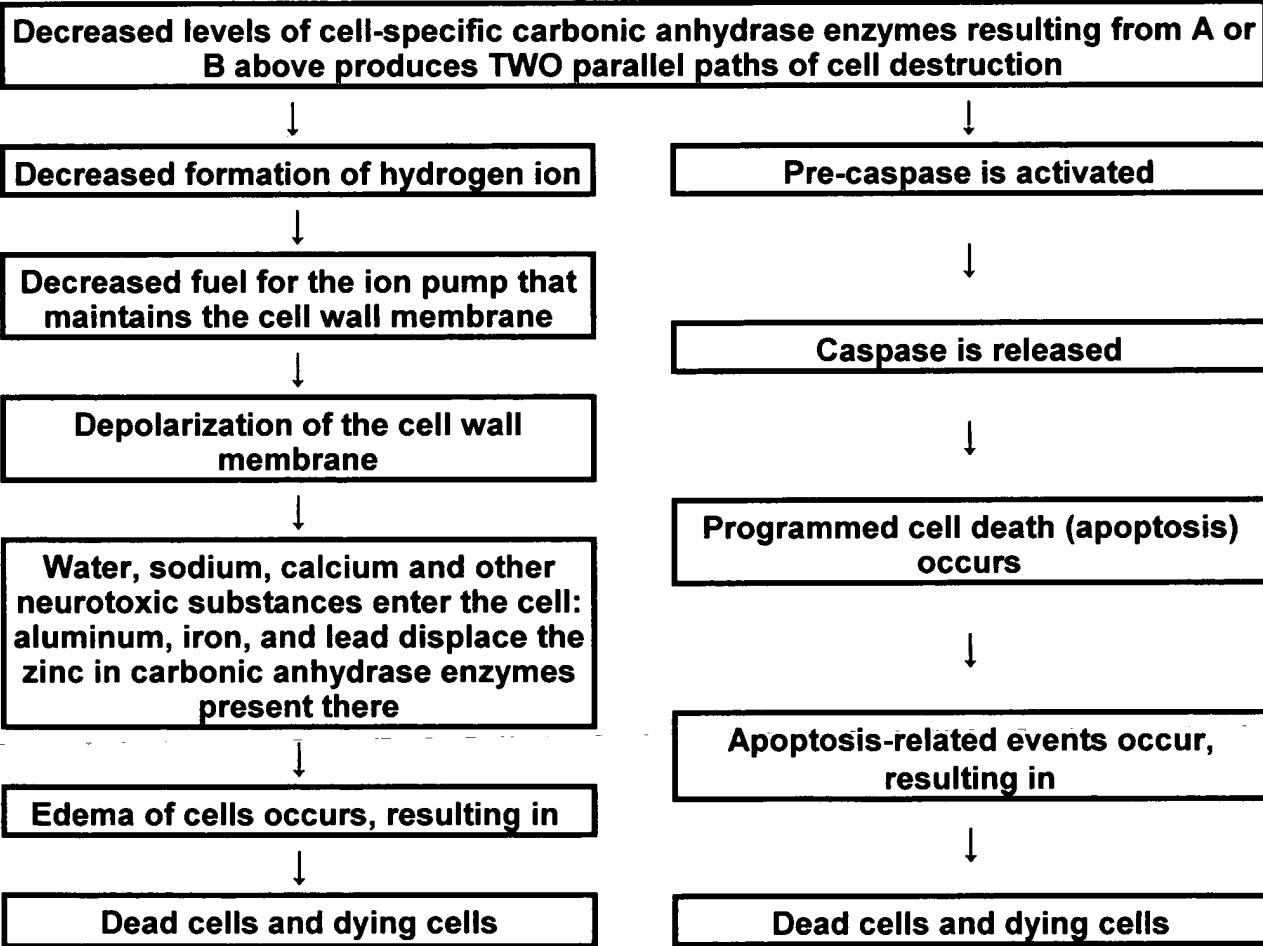


PATHOPHYSIOLOGY OF ALZHEIMER'S DISEASE AND OTHER NEURODEGENERATIVE DISORDERS

- A. Primary deficiency of cell-specific carb nic anhydrase nzym du to defective gene-link carbonic anhydrase enzymes
- B. Secondary deficiency of cell-specific carbonic anhydrase enzyme due to:
 1. Neurotoxic materials, such as aluminum, iron, and lead
 2. Infections that alter the blood-brain barrier
 3. Amyloid deposits that alter the blood-brain barrier
 4. Other conditions or diseases that alter the blood-brain barrier that displace the zinc from cell-specific carbonic anhydrase enzymes



— DEAD AND DYING CELLS INCLUDE NEURONS (BRAIN CELLS) —
(Neuro-fibrillary tangles and tau proteins)

Sensory neurons (sm II, taste)
affected by carbonic anhydrase VI

Motor neurons

Other neurons

Fig. 1